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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,062	03/23/2004	Dirk Fabritius	03/027 NUT	4049

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EXAMINER

PUTTLITZ, KARL J

ART UNIT	PAPER NUMBER
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1621

DATE MAILED: 08/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/807,062

Applicant(s)

FABRITIUS ET AL.

Examiner

Karl J. Puttlitz

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-16 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Various.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 200298826, as evidenced by U.S. Patent application Publication No. 2004/0162437 to Fabritius et al. (Fabritius).

The rejected claims are drawn to, inter alia, a method for producing a saturated organic compound bearing at least one functional group from a mixture which comprises the saturated organic compound containing at least one functional group and also one or more other organic compounds, which comprises i) mixing a silver-ion-loaded ion exchanger with the mixture at a temperature which is below the boiling point of the mixture, ii) then removing the supernatant and iii) detaching the ion-exchanger-bound, saturated organic compound having at least one functional group from the ion exchanger.

Fabritius teaches purification of PUFA's using a silver loaded cationic exchange column, see 0001, 0062 and 0011. Ethanol can be eluent solvent, see Example 3, paragraph 0121.

The difference between the process covered in the rejected claims and the process disclosed by Fabritius, is that Fabritius fails to explicitly teach production of

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saturated compounds. However, the mixtures that are treated can be natural oils, fish oils, processed oils and vegetable oils, see paragraph 0048. Moreover, a purity of PUFA in the resulting mixture is not 100%, see paragraph 0053. Therefore, those of ordinary skill would have expected that some of the resulting mixture would contain saturated compounds, such as saturated fatty acids. Therefore, production of saturated compounds using the process disclosed by Ffabritius is well within the motivation of those of ordinary skill, and thus, *prima facie* obvious.

Claims 5, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fabritius in view of JP 61221298 (JP 298).

The rejected claims cover those embodiments wherein the saturated organic compound bearing a functional group is selected from the group consisting of: alcohols having from 12 to 30 carbon atoms, esters of hydroxycarboxylic acids and/or aminocarboxylic acids and esters or ethers of polyhydric alcohols.

More specifically, wherein the saturated organic compound bearing a functional group is selected from the group consisting of: esters or ethers of ethylene glycol, propylene glycol, propanediol, 1,2- or 1,3-butanediol and glycerol.

Alternatively, wherein the saturated organic compound bearing a functional group is selected from the group consisting of mono- and disubstituted glycerol, the substituents being identical or different fatty acids.

Fabritius fails to explicitly teach the saturated compounds covered by the rejected claims. However, it is for this proposition that the examiner joins JP 298, which

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teaches the purification of monoglycerides using an ion exchange resin. Those of ordinary skill would have been motivated to modify the disclosure of Fabritius to include the purification of monoglycerides since JP 298 teaches that these compounds are effectively purified using ion exchange methods. Therefore, the rejected claims are prima facie obvious in view of the combination of Fabritius in view of JP 298 since these references teach the elements of the rejected claims with a reasonable expectation of success.

Claims 1, 2, 3, 4, 5, 6, 8, 9, 10, 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 3,922,217 to Cohen et al. (Cohen).

Cohen teaches a process for removing polar compounds, such as glycols (see column 4, lines 7-29) from liquid hydrocarbon, see column 1, lines 6-11. The process uses cationic exchange resins, which are macroporous, and can contain sulfonic groups. The resins can use silver. See column 2, lines 5-22.

The difference between The difference between Cohen and the claimed inventions is that Cohen does not teach the invention with particularity so as to amount to anticipation. However, based on the above, Cohen teaches the elements of the claimed invention with sufficient guidance, particularity, and with a reasonable expectation of success, that the invention would be *prima facie* obvious to one of ordinary skill (the prior art reference teaches or suggests all the claim limitations with a reasonable expectation of success. See M.P.E.P. § 2143).

Claim Objections

Claim 7 is objected to for dependence on one or more rejected claims but would be allowable if rewritten in independent form including all limitations of intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl J. Puttlitz whose telephone number is (571) 272-0645. The examiner can normally be reached on Monday to Friday from 9 a.m. to 5 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page, can be reached at telephone number (571) 272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl J. Puttlitz
Assistant Examiner